

REMARKS

Claim 1 has been amended to recite that the (B) the natural rubber is present in an amount of 10-60 mass %. Support for amended Claim 1 can be found at, for example, Example 1 of the present specification. Upon entry of this Amendment, which is respectfully requested, Claims 1, 5, 6 and 10-14 will be pending.

Response to Claim Rejections Under §103

Claims 1, 5, 6 and 10-14 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No 5,396,940 to Segatta and further in view of U.S. Patent No. 3,913,652 to Imamura and U.S. Patent No. 4,192,366 to Scriver. Applicants respectfully traverse.

The present claims are characterized in that (A) the synthetic polyisoprene rubber has a cis-1,4-bond content of not less than 99.0%, a 3,4-bond content of not more than 0.5% and a Mooney viscosity ML_{1+4} (100°C) of 20-110, and the ratio of (A) the synthetic polyisoprene rubber to the total of (A) the synthetic polyisoprene rubber and (B) the natural rubber is 10-60 mass%. According to the presently claimed invention, when the cis-1,4-bond content of the polyisoprene rubber is less than 99.0% or the 3,4-bond content of the polyisoprene rubber exceeds 0.5%, the extension crystallinity is low and the dynamic properties are deteriorated. See paragraph [0015] of the present specification. These results are not taught or suggested by the cited art.

As shown in Table B of the Rule 132 Declaration by Mr. Suzuki, filed on January 13, 2010, when the ratio of (A) the synthetic polyisoprene rubber to the total of (A) the synthetic polyisoprene rubber and (B) the natural rubber is 10 mass% and the cis-1,4-bond content of the

polyisoprene rubber is lower than 99.0% (Comparative Example 1) and/or the 3,4-bond content of the polyisoprene rubber exceeds 0.5% (Comparative Example 1 and Additional Comparative Example C), the durability of the rubber composition is significantly deteriorated.

In addition, as shown in Table 1 of the present specification, the durability index of Example 1 (wherein the ratio of (A) the synthetic polyisoprene rubber is 10 mass%) is 97, and the durability index of Comparative Example 1 is 87 (i.e., the difference therebetween is 10). Further, as shown in Table 1 in the present specification, the durability index of Example 2 (wherein the ratio of (A) the synthetic polyisoprene rubber is 25 mass%) is 94 and the durability index of Comparative Example 2 is 84 (i.e., the difference therebetween is 10).

In contrast, as shown in Table C in the Rule 132 Declaration by Mr. Suzuki, filed on February 14, 2011, the durability index of Additional Example A (wherein the ratio of (A) the synthetic polyisoprene rubber is 5 mass%) is 97, and the durability index of Additional Comparative Example G is 93 (i.e., the difference therebetween is 4).

The above discussed results demonstrate the criticality of the presently claimed ratio (10-60 mass%) of (A) the synthetic polyisoprene rubber to the total of (A) the synthetic polyisoprene rubber and (B) the natural rubber with respect to the durability. Such results would be unexpected by one skilled in the art given the cited art. More particularly, when the ratio of (A) the synthetic polyisoprene rubber is 10 or 25 mass%, the differences between the durability indices are 10, while when the ratio of (A) the synthetic polyisoprene rubber is 5 mass%, the difference between the durability indices is 4.

In addition, as discussed in paragraph [0029] of the present specification, a synthetic polyisoprene rubber may have a trans-1,4-bond (1,4-trans unit), a 3,4-bond (3,4-unit) and a cis-1,4-bond (1,4-cis unit). Therefore, when the cis-1,4-bond content is between 99% and 99.5%

and the 3,4-bond content is below 0.5%, the trans-1,4-bond content is more than 0%. This addresses the question raised on page 4 of the Office Action regarding whether additional structure is present.

Thus, Segatta, Imamura and Scriver fail to render obvious the present claims. Accordingly, withdrawal of the rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Respectfully submitted,



Thomas M. Hunter
Registration No. 64,676

Date: June 23, 2011